

Supplementary file 3 Associations between the FSA-NPS DI and breast cancer risk by hormonal receptor status of the tumors, from multivariable Cox proportional hazards models, NutriNet-Santé Cohort, France, 2009-2015

FSA-NPS DI	N for cases/ non-cases	Multivariable-adjusted model ^a		
		HR	95%CI	P-trend
ER+	307/46,557			
Continuous score		1.05	0.99, 1.12	0.07
Quintiles ^b				0.07
Q1		1.00	(ref)	
Q2		1.59	1.08, 2.34	
Q3		1.77	1.20, 2.60	
Q4		1.59	1.06, 2.39	
Q5		1.60	1.04, 2.46	
ER-	54/46,810			
Continuous score		1.07	0.94, 1.23	0.3
Quintiles ^b				0.1
Q1		1.00	(ref)	
Q2		1.70	0.66, 4.37	
Q3		0.74	0.23, 2.37	
Q4		3.24	1.32, 7.95	
Q5		1.54	0.54, 4.42	
PR+	260/46,604			
Continuous score		1.04	0.97, 1.11	0.2
Quintiles ^b				0.3
Q1		1.00	(ref)	
Q2		1.73	1.14, 2.62	
Q3		1.64	1.07, 2.52	
Q4		1.62	1.04, 2.51	
Q5		1.46	0.91, 2.35	
PR-	102/46,762			
Continuous score		1.11	1.01, 1.23	0.04
Quintiles ^b				0.01
Q1		1.00	(ref)	
Q2		1.29	0.64, 2.62	
Q3		1.68	0.84, 3.34	
Q4		2.46	1.26, 4.79	
Q5		1.99	0.95, 4.17	
ER+/PR+				
Continuous score	258/46,606	1.04	0.97, 1.11	0.3
Quintiles ^b				0.3
Q1		1.00	(ref)	
Q2		1.72	1.14, 2.62	
Q3		1.58	1.03, 2.42	
Q4		1.61	1.04, 2.49	
Q5		1.45	0.90, 2.33	
ER-/PR-	53/46,811			
Continuous score		1.07	0.93, 1.23	0.3
Quintiles ^b				0.1
Q1		1.00	(ref)	
Q2		1.68	0.65, 4.32	

Q3		0.58	0.17, 2.01	
Q4		3.16	1.29, 7.77	
Q5		1.50	0.52, 4.32	
ER+/PR-	49/46,815			
Continuous score		1.16	1.00, 1.35	0.047
Quintiles ^b				0.03
Q1		1.00	(ref)	
Q2		0.88	0.29, 2.66	
Q3		2.89	1.18, 7.11	
Q4		1.53	0.53, 4.38	
Q5		2.69	0.96, 7.57	

^a Models were adjusted for age (time-scale), BMI (kg/m², continuous), height (cm, continuous), physical activity (high, moderate, low), smoking status (never smokers, former smokers, occasional smokers, smokers), numbers of dietary records (continuous), alcohol intake (g/d, continuous), energy intake (without alcohol, g/d, continuous), family history of cancer (yes/no), educational level (<high-school degree, <2 years after high-school degree, ≥2 years after high-school degree), number of biological children (continuous), menopausal status at baseline (pre-menopause, perimenopause, post-menopause), hormonal treatment for menopause (postmenopausal women, yes/no) and oral contraception use (premenopausal women, yes/no).

^b Cut-offs for quintiles of the FSA-NPS DI were 4.1/5.4/6.5/7.7